

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Japp *et al.*

Examiner: Nordmeyer, Patricia L.

Serial No.: 10/691,882

Group Art Unit: 1772

Filed: 10/23/2003

Docket No.: **END920000150US2**

Title: **DRILL STACK FORMATION**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF OF APPELLANT

This Appeal Brief, pursuant to the Notice of Appeal filed July 23, 2007, is an appeal from the rejection of the Examiner in the Office Action dated May 3, 2007.

Appellants are applying the Notice of Appeal fee previously paid for the Notice of Appeal filed November 3, 2006.

Appellants are applying the Appeal Brief fee previously paid for the Appeal Brief filed January 3, 2007.

REAL PARTY IN INTEREST

International Business Machines, Inc. is the real party in interest.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claims 2-13, 17, 32, 34-37 and 40-43 are rejected. Claims 1, 14-16, 18-31, 33, and 38-39 are canceled. This Brief is in support of an appeal from the rejection of claims 2-13, 17, 32, 34-37 and 40-43.

STATUS OF AMENDMENTS

There are no After-Final Amendments which have not been entered.

SUMMARY OF CLAIMED SUBJECT MATTER

A. CLAIM 4 - INDEPENDENT

The present invention provides a structure, comprising: a stack (12D) of two or more sheets (14), a first surface of a first layer (18A), and a first surface of a second layer (18B). Successive sheets in each pair of successive sheets of the stack are adhesively coupled to each other by an adhesive layer consisting of a removable adhesive (16). The adhesive layer is in direct mechanical contact with the successive sheets in each pair. The removable adhesive is also disposed on top and bottom surfaces of the stack. The first surface of the first layer is coupled with the removable adhesive to a first surface of the stack. The first surface of the second layer is coupled with the removable adhesive to a second surface of the stack. See FIG. 2; specification, page 5, lines 13-20.

The removable adhesive consists of a liquid while adhesively coupling the successive sheets to each other. See specification, page 5, lines 8-12.

The first and second layers are adapted to prevent burr formation in a hole subsequently

drilled through the stack. See specification, page 8, lines 19-21.

B. CLAIM 17 - INDEPENDENT

The present invention provides a structure, comprising a plurality of stacks (12C, 12D, 12E, 12F). Each stack and its adjacent stack of the plurality of stacks are both coupled with a removable adhesive (16) to an intermediate layer (18B, 18C, 18D) therebetween. Each stack comprises a plurality of sheets (14) such that each sheet and its adjacent sheet of the plurality of sheets are adhesively coupled to each other with an adhesive layer consisting of the removable adhesive. The adhesive layer is in direct mechanical contact with said each sheet and its adjacent sheet. See FIG. 2; specification, page 5, lines 13-20.

The removable adhesive consists of a liquid while adhesively coupling said each sheet with its adjacent sheet. See specification, page 5, lines 8-12.

Each intermediate layer is adapted to prevent burr formation in a hole subsequently drilled through the stack. See specification, page 8, lines 19-21.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 2, 4, 5, 10, 17, 32 and 40 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hatch et al. (USPN 4,929,370) in view of Weinreich (USPN 5,435,671) and Moline et al. (USPN 3,464,883).

2. Claims 3 and 41-43 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hatch et al. (USPN 4,929,370) in view of Weinreich (USPN 5,435,671) and Moline et al.

(USPN 3,464,883) as applied to claims 2, 4, 5, 10, 17, 32 and 40 above, and further in view of Sinclair et al. (USPN 5,834,582).

3. Claims 6-9, 12, 13 and 34-37 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hatch et al. (USPN 4,929,370) in view of Weinreich (USPN 5,435,671) and Moline et al. (USPN 3,464,883) as applied to claims 2, 4, 5, 10, 17, 32 and 40 above, and further in view of Frater et al. (USPN 6,355,360).

4. Claim 11 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hatch et al. (USPN 4,929,370) in view of Weinreich (USPN 5,435,671) and Moline et al. (USPN 3,464,883) and Frater (USPN 6,355,360) as applied to claims 6-9, 12, 13 and 34-37 above, and further in view of Block (USPN 4,269,549).

ARGUMENT

GROUND OF REJECTION 1

Claims 2, 4, 5, 10, 17, 32 and 40 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hatch et al. (USPN 4,929,370) in view of Weinreich (USPN 5,435,671) and Moline et al. (USPN 3,464,883).

Appellants respectfully contend that claims 4 and 17 are not unpatentable over Hatch in view of Weinreich and Moline, because Hatch in view of Weinreich and Moline does not teach or suggest each and every feature of claims 4 and 17.

A first reason why claims 4 and 17 are not unpatentable over Hatch in view of Weinreich and Moline is that Hatch in view of Weinreich and Moline does not teach or suggest the feature: “wherein the removable adhesive **consists of a liquid** while adhesively coupling the successive sheets to each other”(emphasis added) (claim 4); and “wherein the removable adhesive **consists of a liquid** while adhesively coupling said each sheet with its adjacent sheet”(emphasis added) (claim 17).

The Examiner argues: “Moline et al. teach adhesive consisting of a liquid while adhesively coupling the successive sheets to each other (Column 5, lines 22 – 26), wherein the sheets comprises metal foil (Column 4, line 8) for the purpose of having an adhesive without having excessive bleeding or oozing while having the desired amount of tackiness (Column 3, lines 30 – 38).”

In response, Appellants respectfully disagree that Moline’s adhesive consists of a liquid when adhesively coupling the successive sheets to each other. Noting that the

adhesive layer is disposed between a release liner and a face layer, Appellants note that Moline, col. 22-26 recites: “An acrylate ester copolymer ... was dissolved in a mixture of methyl ethyl ketone, toluene, and methyl alcohol and was coated upon the release liner. The adhesive was then partially dried. For this adhesive formulation the solvent content of the partially dried adhesive may be from 20% to 80%, but a solvent content of 20% to 50% is preferred. **A face layer of polished cotton and polyester film laminate was then adhered to the partially dried adhesive**” (emphasis added).

In other words, the adhesive layer that is disposed between the release liner and the face layer is in a **partially dried** state which is not disclosed by Moline as being a pure liquid state, as required by claims 4 and 17 the claim language requires that “the removable adhesive consists of a liquid while adhesively coupling said each sheet with its adjacent sheet”. To interpret the aforementioned “partially dried” state, Appellants refer to Moline col. 2, lines 44-52 which recites: “the adhesive has uniformly dispersed therein a quantity of solvent for the adhesive. The solvent is present in the adhesive in an amount sufficient to cause the adhesive to be tacky, but **the solvent is not present in an amount sufficient to give the adhesive that degree of liquidity which would allow the adhesive to flow laterally of the face layer**” (emphasis added). Appellants assert that the preceding quote from Moline col. 2, lines 44-52 demonstrates that Moline’s adhesive layer, when adhesively coupling the successive sheets to each other, is partially liquid but is not purely liquid (because of the described “degree of liquidity”) and therefore does not consist of a liquid.

Furthermore, Moline, col. 3, lines 27-34 states that after the adhesive has been

laminated to the release liner, and before the face layer is laminated to the adhesive on the release liner, the adhesive is dried by evaporation until the adhesive acquires a desired degree of tackiness. Appellants assert that Moline does not disclose that the adhesive is a pure liquid upon acquiring the desired degree of tackiness. Appellants further assert that both a solid material and a liquid material may have the property of being tacky.

In summary, Appellants respectively maintain that Moline does not teach or suggest that the adhesive layer of a solvent dispersed in an adhesive consists of a liquid when adhesively coupling the successive sheets to each other.

A second reason why claims 4 and 17 are not unpatentable over Hatch in view of Weinreich and Moline is that there is no enablement for modifying Hatch through use of Moline's adhesive layer to satisfy the requirement of the adhesive being "removable" if used by Hatch. Moline, col. 6, lines 25-35 explains that in order for the face layer to be "releasable" from the adhesive layer, the release liner must be more releasable from the adhesive layer than is the face layer. As applied to Hatch, Moline's adhesive layer would replace the lubricating film 32 in the lubricating sheet 30 such that Hatch's carrier sheet 31 has the role of Moline's release liner (see Hatch, FIG. 2 and col. 5, lines 15-21). Referring to Hatch, FIG. 3 and col. 6, lines 36-44, the lubricating sheet 30 adhesively couples successive circuit board panels 38. Therefore, in order for the lubricating sheets having Moline's adhesive layer thereon to be removable from the successive circuit board panels 38, the successive circuit board panels 38 would have to be more releasable from the

adhesive layer than is the carrier sheet 31, a requirement that is not disclosed by Hatch or Moline as being satisfied.

Therefore, Appellants respectively maintain that the Examiner has not supplied evidence to allegedly demonstrate that Moline's adhesive layer would be "removable" (as required by claims 4 and 17) if incorporated into Hatch's invention.

A third reason why claims 4 and 17 are not unpatentable over Hatch in view of Weinreich and Moline is that there is no evidence that the Examiner has not provided evidence allegedly demonstrating that Moline's adhesive layer satisfies Hatch's requirement of being water soluble (see Hatch, col. 5, line 35). Appellants note that Moline's list of exemplary solvents in Moline, col. 5, lines 2-11 do not include water.

A fourth reason why claims 4 and 17 are not unpatentable over Hatch in view of Weinreich and Moline is that the Examiner has not provided evidence allegedly demonstrating that Moline's adhesive layer satisfies Hatch's requirement of "lubricating a high speed rotary drilling tool during drilling without adversely affecting drill operation while producing a smooth-walled drill hole" (see Hatch, col. 5, lines 37-40).

A fifth reason why claims 4 and 17 are not unpatentable over Hatch in view of Weinreich and Moline is that the Examiner's argument for modifying Hatch to incorporate Moline's adhesive layer is not persuasive.

The Examiner argues: “it would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have modified Hatch et al. to include a multilayered entry/exit board as taught by Weinreich in order to resist burr-formation during drilling and to have substituted the semi-solid adhesive material in the Hatch et al. with a adhesive made from a liquid as taught by Moline et al. in order to have an adhesive without having excessive bleeding or oozing while having the desired amount of tackiness.”

In response, Appellants respectfully contend that there is no disclosure anywhere in Hatch that Hatch’s lubricating sheet 30 has “excessive bleeding or oozing while having the desired amount of tackiness”. To the contrary, Hatch’s lubricating sheet 30 satisfies Hatch’s requirement of being “capable of providing a **stable** film-form lubricant on a carrier sheet or other surface” (emphasis added) (see Hatch, col. 5, lines 35-37). Furthermore, Hatch, col. 5, lines 57-60 recites: “The hardener can be a synthetic wax such as a fatty acid ester used in the formulation so as **to provide dimensional stability** without adversely affecting the desired water soluble properties of the final composition” (emphasis added).

In summary, Appellants maintain that the Examiner’s suggestion of modifying Hatch by incorporating Moline’s adhesive layer is not persuasive, because the Examiner’s stated motivation for the modification of Hatch is to solve a problem that does not exist in Hatch.

A sixth reason why claims 4 and 17 are not unpatentable over Hatch in view of Weinreich and Moline is that the Hatch teaches away from Hatch’s dry lubricating film being in a wet state with respect to the adhesive property. See Hatch, col. 3 lines 55-61

which recites: “the dry film lubricant comprises a water soluble lubricant hardened into a solid or semi-solid film form **sufficiently dry** to adhere to a carrier sheet in a stable form and act as a lubricant for a high speed rotary drill passing through the sheet, without adversely affecting drill operation or the smoothness of the resulting drill hole” (emphasis added). In other words, Hatch teaches that a **sufficiently dry** film lubricant is a necessary condition for the dry film lubricant to have an adhesive functionality.

Also note that the word “dry” in “dry film lubricant” appears everywhere in Hatch: in the title, claims, abstract, summary of the invention, and detailed description. This pervasive appearance of “dry” in “dry film lubricant” throughout the Hatch disclosure makes it clear that Hatch intends that the dry film lubricant be “dry”.

In contrast, Moline’s adhesive is in a “basically wet state” (see Moline, col. 1, lines 70-72). Since “dry” and “wet” are polar opposites, Appellants respectfully maintain that Hatch teaches away from use of Moline’s adhesive that exists in the “basically wet state”.

Based on the preceding arguments, Appellants respectfully maintain that claim 4 is not unpatentable over Hatch in view of Weinreich and Moline, and that claim 4 is in condition for allowance. Since claims 2, 5, 10 and 32 depend from claim 4, Appellants contend that claims 2, 5, 10 and 32 are likewise in condition for allowance. Since claim 40 depends from claim 17, Appellants contend that claim 40 is likewise in condition for allowance.

GROUND OF REJECTION 2

Claims 3 and 41-43 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hatch et al. (USPN 4,929,370) in view of Weinreich (USPN 5,435,671) and Moline et al. (USPN 3,464,883) as applied to claims 2, 4, 5, 10, 17, 32 and 40 above, and further in view of Sinclair et al. (USPN 5,834,582).

Since claims 3 and 43 respectively depend from claim 4, which Appellants have argued *supra* to not be unpatentable over Hatch in view of Weinreich and Moline under 35 U.S.C. §103(a), Appellants maintain that claims 3 and 43 are likewise not unpatentable over Hatch in view of Weinreich and Moline and further in view of Sinclair under 35 U.S.C. §103(a).

Since claims 41 and 42 respectively depend from claim 17, which Appellants have argued *supra* to not be unpatentable over Hatch in view of Weinreich and Moline under 35 U.S.C. §103(a), Appellants maintain that claims 41 and 42 are likewise not unpatentable over Hatch in view of Weinreich and Moline and further in view of Sinclair under 35 U.S.C. §103(a).

In addition, Hatch in view of Weinreich and Moline and further in view of Sinclair does not teach or suggest the feature:

“wherein the removable adhesive consists of a material selected from the group consisting of fructose, sucrose, water, and a water solution” (claim 3);

“wherein the removable adhesive, while adhesively coupling said each sheet with its adjacent sheet, consists of a material selected from the group consisting of water and a water solution” (claim 41);

“wherein the removable adhesive, while adhesively coupling said each sheet with its adjacent sheet, consists of a material selected from the group consisting of fructose and sucrose” (claim 42);

“wherein the removable adhesive consists of a material selected from the group consisting of fructose and sucrose.” (claim 43).

The Examiner relies on Sinclair for allegedly teaching use of sucrose in the removable, liquid adhesive recited in claims 3 and 41-43.

In response with respect to claims 42 and 43, Appellants note that Sinclair’s adhesive comprises a combination of a polymer and a modifier (i.e., sucrose) (e.g., see Sinclair, col. 5, lines 24-27; col. 53, lines 21-22 and col. 54, line 1). However, claims 42 and 43 recite the closed-end language of “consists of ... sucrose” which excludes anything other than sucrose in the liquid adhesive. Thus, the liquid adhesive in claims 42 and 43 does not read on Sinclair which discloses sucrose in combination with a polymer.

The Examiner specifically cites Sinclair col. 24, lines 15-20 and col. 55, lines 4-5. In response, Appellants note that both Sinclair col. 24, lines 15-20 and col. 55, lines 4-5 are specific to Sinclair’s modifier, which does not negate the fact that Sinclair’s adhesive comprises a combination of a polymer and a modifier and is thus incompatible with the aforementioned feature in claims 42 and 43 of the liquid adhesive **consisting of** fructose or sucrose.

In response with respect to claim 41, Appellants assert that Sinclair does not teach or suggest that the liquid adhesive consists of water or a water solution as required by claim 41.

In response with respect to claim 3, Appellants assert that the Examiner’s reliance on

Sinclair for teaching the use of sucrose is misplaced because claim 3 does not recite that liquid adhesive includes sucrose. Moreover, Sinclair does not disclose that the liquid adhesive consists of fructose, sucrose, water, or a water solution as required by claim 3.

Based on the preceding arguments, Appellants respectfully maintain that claims 3 and 41-43 are not unpatentable over Hatch in view of Weinreich and Moline and further in view of Sinclair.

GROUND OF REJECTION 3

Claims 6-9, 12, 13 and 34-37 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hatch et al. (USPN 4,929,370) in view of Weinreich (USPN 5,435,671) and Moline et al. (USPN 3,464,883) as applied to claims 2, 4, 5, 10, 17, 32 and 40 above, and further in view of Frater et al. (USPN 6,355,360).

Since claims 6-9, 12, 13, and 34-37 depend from claim 4, which Appellants have argued *supra* to not be unpatentable over Hatch in view of Weinreich and Moline under 35 U.S.C. §103(a), Appellants maintain that claims 6-9, 12, and 34-36 are likewise not unpatentable over Hatch in view of Weinreich and Moline and further in view of Frater under 35 U.S.C. §103(a).

In addition, claims 6-9, 12, 13, and 34-35 recite a distribution of sequentially ordered plates, and pressure heads, which Hatch in view of Weinreich and Moline does not disclose.

The Examiner argues:

“Hatch et al., Weinreich and Moline et al. teach a structure as detailed above. The aforementioned prior art is silent with regards to the use of a three stainless steel plates on each side of the stack of metal substrates as well as a blotter pad within the three stainless steel plates. It is notoriously well known in the art, however, to provide at least three stainless plates in combination with a foil layer in the production of printed circuit boards as evidenced by Frater (Col. 2, lines 53-64). These steel plates implicitly comprise pressure heads wherein a compressive force acts upon the entire substrate. Frater teaches that it is generally well known in the art to use multiple steel plates to prevent and minimize scrap and rework due to image transfer and surface

quality problems (Col. 2, lines 53-54). It would have been obvious to one of ordinary skill in the art at the time Applicants invention was made to have combined the teachings of Hatch et al., Weinreich, Moline et al. and Frater, since each of the aforementioned references are analogous insofar as being directed to improving the drilling operation in stacked metal formations.

Therefore, it would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have modified Hatch et al., Weinreich and Moline et al: to include a three layered stainless steel configuration on each side of the foil layer lying adjacent the top and bottom of the stack of sheets as taught by Frater in order to prevent and minimize scrap and rework due to image transfer and surface quality problems. It further would have been obvious to one of ordinary skill in the art to provide a paper (blotter) substrate between one of the steel plates since it is notoriously well known in the art to provide paper substrates in order to facilitate even application of pressure between opposing plates.”

With respect to use of a blotter in claim 8, Appellants note that the Examiner’s stated motivation for using a blotter of distributing pressure between opposing plates makes sense only if the pressure is distributed evenly among all plates in the stack. However, the Examiner has not cited a reference disclosing where to place a blotter in a stack in order to distribute pressure evenly among all plates in the stack. In particular, the Examiner has not cited any reference disclosing that placement of the first blotter in contact with the second surface of the third plate, and placement of the second blotter in contact with the second surface of the fourth plate, as recited in claim 8, would distribute pressure evenly among all plates in the stack. Therefore, the Examiner’s argument for modifying Hatch in view of Weinreich and Moline to add blotters is not persuasive. Accordingly, the Examiner has not

established a *prima facie* case of obviousness in relation to claim 8.

With respect to claim 9, the Examiner has not cited any motivation for the particular sequence of foil, plates and blotter recited (i.e., foil, plate, plate, blotter, plate for the first foil and the second foil).

With respect to use of pressure heads in claims 34 and 35, the Examiner's characterization of the plates as pressure heads is inaccurate, because a pressure head is a source of pressure. For example, a head in a fluid is the difference in elevation between a higher point and a lower point in a column of fluid, resulting in a pressure of the fluid at the lower point due to the difference in elevation. In the case of the fluid, the fluid is medium that transmits the pressure from one point to another and is not the head itself. Similarly, the plates are not the pressure head but rather are media through which the pressure is transmitted.

Moreover in claims 34 and 35, the Examiner has not provided motivation for placing the first and second pressure heads specifically in contact with the second surface of the fifth plate and the second surface of the of the sixth plate, respectively.

In addition, claims 36 and 37 recite having “the stack, the first layer, the second layer, the first foil, the second foil, the first plate, the second plate, the third plate, the fourth plate, the first bladder pad, the second bladder pad, the fifth plate, and the sixth plate ... **at an elevated temperature**” (claim 36), wherein the **elevated temperature** is in a range of 50

°F to 200 °F”(claim 37) (emphasis added).

Appellants note that the Examiner has not examined claims 36 and 37 with respect to the recited “elevated temperature”. Therefore, the Examiner has not established a *prima facie* case of obviousness in relation to claims 36 and 37..

GROUND OF REJECTION 4

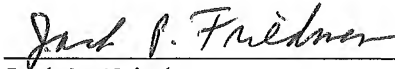
Claim 11 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hatch et al. (USPN 4,929,370) in view of Weinreich (USPN 5,435,671) and Moline et al. (USPN 3,464,883) and Frater (USPN 6,355,360) as applied to claims 6-9, 12, 13 and 34-37 above, and further in view of Block (USPN 4,269,549).

Since claim 11 depends from claim 4, which Appellants have argued *supra* to not be unpatentable over Hatch in view of Weinreich and Moline and further in view of Sinclair under 35 U.S.C. §103(a), Appellants maintain that claim 11 is likewise not unpatentable over Hatch in view of Weinreich and Moline further in view of Block under 35 U.S.C. §103(a).

SUMMARY

In summary, Appellant respectfully requests reversal of the August 3, 2006 Office Action rejection of claims 2-13, 17, 32, 34-37 and 40-43.

Respectfully submitted,



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APPENDIX A - CLAIMS ON APPEAL

2. The structure of claim 4, wherein the sheets each consist of a material selected from the group consisting of copper, invar, copper-invar-copper, aluminum, and molybdenum.
3. The structure of claim 4, wherein the removable adhesive consists of a material selected from the group consisting of fructose, sucrose, water, and a water solution.
4. A structure, comprising:
 - a stack of two or more sheets, wherein successive sheets in each pair of successive sheets of the stack are adhesively coupled to each other by an adhesive layer consisting of a removable adhesive, wherein the adhesive layer is in direct mechanical contact with the successive sheets in each pair, and wherein the removable adhesive is also disposed on top and bottom surfaces of the stack, and wherein the removable adhesive consists of a liquid while adhesively coupling the successive sheets to each other;
 - a first surface of a first layer coupled with the removable adhesive to a first surface

of the stack; and

a first surface of a second layer coupled with the removable adhesive to a second surface of the stack, wherein the first and second layers are adapted to prevent burr formation in a hole subsequently drilled through the stack.

5. The structure of claim 4, further including:

a first surface of a first foil layer contacting a second surface of the first layer, wherein the first foil layer consists of a first foil; and

a first surface of a second foil layer contacting a second surface of the second layer, wherein the second foil layer consists of a second foil.

6. The structure of claim 5, further including:

a first surface of a first plate contacting a second surface of the first foil; and

a first surface of a second plate contacting a second surface of the second foil.

7. The structure of claim 6, further including:

a first surface of a third plate contacting a second surface of the first plate; and

a first surface of the fourth plate contacting a second surface of the second plate.

8. The structure of claim 7, further including:

a first blotter pad comprising at least one blotter sheet;

a first surface of the first blotter pad contacting a second surface of the third plate;

a second blotter pad comprising at least one blotter sheet; and

a first surface of the second blotter pad contacting a second surface of the fourth

plate.

9. The structure of claim 8, further including:

a first surface of a fifth plate contacting a second surface of the first blotter pad; and

a first surface of a sixth plate contacting a second surface of the second blotter pad.

10. The structure of claim 5, wherein the first and second layer comprises a material selected from the group consisting of impregnated and laminated epoxy/glass, phenolic/paper laminate, and aluminum.

11. The structure of claim 6, wherein the first and second foil comprises copper.

12. The structure of claim 8 wherein the first and second blotter sheet comprises paper.

13. The structure of claim 9, wherein the fifth and sixth plate comprises stainless steel.

17. A structure, comprising:

a plurality of stacks, wherein each stack and its adjacent stack of the plurality of stacks are both coupled with a removable adhesive to an intermediate layer therebetween, wherein each intermediate layer is adapted to prevent burr formation in a hole subsequently drilled through the stack, wherein each stack comprises a plurality of sheets such that each sheet and its adjacent sheet of the plurality of sheets are adhesively coupled to each other with an adhesive layer consisting of the removable adhesive, wherein the adhesive layer is in direct mechanical contact with said each sheet and its adjacent sheet, and wherein the removable adhesive consists of a liquid while adhesively coupling said each sheet with its adjacent sheet.

32. The structure of claim 4, wherein a continuous opening extends through the stack, the first layer, and the second layer.

34. The structure of claim 9, further including:

a first pressure head contacting a second surface of the fifth plate; and

a second pressure head contacting a second surface of the sixth plate.

35. The structure of claim 34, wherein a compressive force is acting upon the stack, the first layer, the second layer, the first foil, the second foil, the first plate, the second plate, the third plate, the fourth plate, the first bladder pad, the second bladder pad, the fifth plate, and the sixth plate, and wherein the compressive force is being provided by the first and second pressure heads.

36. The structure of claim 35, wherein the stack, the first layer, the second layer, the first foil, the second foil, the first plate, the second plate, the third plate, the fourth plate, the first bladder pad, the second bladder pad, the fifth plate, and the sixth plate are at an elevated temperature.

37. The structure of claim 36, wherein the elevated temperature is in a range of 50 °F to 200 °F.

40. The structure of claim 17, wherein the sheets each consist of a material selected from the group consisting of copper, invar, copper-invar-copper, aluminum, and molybdenum.

41. The structure of claim 17, wherein the removable adhesive, while adhesively coupling said each sheet with its adjacent sheet, consists of a material selected from the group consisting of water and a water solution.

42. The structure of claim 17, wherein the removable adhesive, while adhesively coupling said each sheet with its adjacent sheet, consists of a material selected from the group consisting of fructose and sucrose.

43. The structure of claim 4, wherein the removable adhesive consists of a material selected from the group consisting of fructose and sucrose.

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APPENDIX B - EVIDENCE

There is no evidence entered by the Examiner and relied upon by Appellant in this appeal.

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APPENDIX C - RELATED PROCEEDINGS

There are no proceedings identified in the “Related Appeals and Interferences”
section.